IN THE CLAIMS

1-28 (canceled)

29 (new) A mixture comprising.

A) a content of electrically conductive or/and semiconducting elements/compounds chosen from the group consisting of

a) electrically conductive or semiconducting particles or any combination of these having a particle size distribution with a d_{80} passage value of $\leq$ 6 μm, measured with a Mastersizer of type S from Malvem instruments,

where, however, not only electrically conductive or semiconducting substances or any mixtures of these based only on particles of aluminum, iron phosphide or metallic zinc or any mixtures of these and optionally on up to 5 wt.% of graphite or molybdenum sulfide or any mixtures of these, or

b) electrically conductive or semiconducting polymeric compounds or any mixtures of these or derivatives thereof

c) electrically conductive or semiconducting amine-or/and ammonium-containing compounds or any mixtures of these whereby such compounds are only used together with a content of electrically conductive or semiconducting elements/compounds or any mixture of these chosen from a) and c), and;

whereby the mixture is free from carbon black, and

B) at least one binder, optionally including reactive diluent(s), and

(C) in each case at least one crosslinking agent or at least one photoinitiator or any mixtures of these;

whereby the content of binders including reactive diluent(s) or crosslinking agent(s) or any mixtures of these is in the range form 16 to 42% by weight, and

D) optionally also in each case at least one component chosen from

d) post-crosslinking compounds, such as e.g. isocyanates, blocked isocyanates, isocyanurates, melamine resins of their derivatives thereof of any mixtures of these,

f) corrosion protection pigments on the base of silicates, whereby the corrosion protection pigments have an average particle size d_{50} in the range from 0.01 to 5 μm.

g) corrosion inhibitors which are not present in particle form and optionally

E) organic solvent or water or any mixtures of these;

wherein the sum of the weight contents of all of the electrically conductive or semiconducting elements/compounds or any mixtures of these A) being 0.5 to 70 wt.% and

wherein the content of the electrically conductive or semiconducting particles or any mixture of these a) of these with a particle size distribution with a d80 passage value of $\leq$ 6 μm being 0 to 60 w.%, in each case based on the wet lacquer.

30 (new) A mixture according to claim 29, wherein the sum of the weight contents of the water-insoluble or sparingly water-soluble pigmentation a) relative to the sum of the total pigmentation Σ(a) + f)) is 30 to 99 wt.%.

31. (new) A mixture according to claim 29, wherein the mixture of all the types of electrically conductive or/and semiconducting hard particles a) has an average particle size d_{50} in the range from 0.1 to 4.5 μm, in particular in the range from 0.2 to 3.5 μm.

32. (new) A mixture according to claim 29, wherein on addition to the mixture, the mixture of all the types of very soft or soft particles which are capable of sliding has a particle size passage value d_{80} in the range from 1 to 25 μm.

33. (new) A mixture according to claim 29,w herein on addition to the mixture, the mixture of all the types of very soft or soft particles which are capable of sliding has an average particle size d_{50} in the range from 0.1 to 20 μm.

34. (new) A mixture according to claim 29, wherein on addition to the mixture, the metallic particles, including alloy particles, have a particle size passage value d_{80} in the range from 0.05 to 6 μm.

35. (new) A mixture according to claim 29, wherein on addition to the mixture, the metallic particles, including alloy particles, have an average particle size d_{50} in the range from 0.01 to 10 μm.

36. (new) A mixture according to claim 29, wherein on addition to the mixture, the corrosion protection particles f) have an average particle size d_{50} in the range from 0.01 to 5 μm.

37. (new) A mixture according to claim 29, wherein on addition to the mixture, the corrosion protection particles f) have the particle size passage value d_{80} in the range from 0.03 to 6 μm.

38. (new) A mixture according to claim 29, wherein the electrically conductive or/and semiconducting hard particles a) comprise substances based on compounds or mixture of compounds with or of spinels, such as e.g. Fe_3O_4, Mn_3O_4, $FeMn_2O_4$ or/and further substances based on borides, carbides, oxides, phosphates, phosphides, silicates, silicides or particles having an electrically conductive coating or/and a mixture thereof or a common compound thereof, and in that further metallic particles, including alloy particles, graphite or/and carbon black, are

optionally present, the metallic particles, including alloy particles, being chosen from aluminium, iron, cobalt, copper, molybdenum, nickel, niobium, silver, tantalum, titanium, vanadium, tungsten, zinc, tin, aluminium-, iron-, cobalt-, copper-, molybdenum-, nickel-, niobium-, silver-, tantalum-, titanium-, vanadium-, tungsten-, zinc- or/and tin-containing alloys.

39. (new) A mixture according to claim 29, wherein at least 10 wt.% of the electrically conductive or/and semiconducting hard particles a) are oxides or/and phosphides substantially based on aluminium, iron, cobalt, copper, manganese, molybdenum, nickel, niobium, tantalum, titanium, vanadium, tungsten, zinc or/and tin.

40. (new) A mixture according to claim 29, wherein the very soft or soft particles which are capable of sliding predominantly or entirely comprise graphite, sulfide, selenide or/and telluride, in particular graphite, antimony-containing sulfide, tin-containing sulfide, molybdenum-containing sulfide or/and tungsten-containing sulfide.

41. (new) A mixture according to claim 29, wherein it comprises at least one electrically conductive or/and semiconducting polymeric compound b), e.g. at least one conductive polymer, such as e.g. polyaniline, polypyrrole, polythiophene or/and (a) derivative(s) thereof.

42. (new) A mixture according to claim 29, wherein it comprises at least one electrically conductive or/and semiconducting compound c), e.g. at least one tertiary amine, one ammonium compound or/and (a) derivative(s) thereof.

43. (new) A mixture according to claim 29, wherein it comprises not more than 1.5 wt.% of wax or/and of substances having wax-like properties.

44. (new) A process for producing a corrosion-resistant, viscoelastic coating comprising polymers and inorganic particles on a substrate, characterized in that a mixture

according to claim 29 applied to an optionally precoated substrate, optionally dried and at least partly crosslinked, as a result of which a coating of which the average layer thickness in the dry state is not more than 6 μm, measured in the dry state microscopically on a ground cross-section, is produced.

45. (new) A process according to claim 44, wherein the very soft or soft particles which are capable of sliding, such as e.g. graphite, are in each case not ground or are ground with only a low intensity before addition to the mixture or in the mixture or/and in a portion of the mixture.

46. (new) A process according to claim 44, wherein the electrically conductive or/and semiconducting hard particles a) are ground by themselves.

47. (new) A process according to claim 44, wherein the coating is produced with a mixture in which the mixture of all the types of particles a) has a particle passage value d_{80} which is no greater than the layer thickness of the dry coating produced therewith.

48. (new) A process according to claim 44, wherein on grinding of the electrically conductive or/and semiconducting hard particles a), the over-sized particles are predominantly comminuted, so that a narrower particle size distribution arises.

49. (new) A process according to claim 44, wherein the particle size passage value d_{99} of the electrically conductive or/and semiconducting hard particles a) is not substantially greater than, no greater than or only slightly less than the average thickness of the coating.

50. (new) A process according to claim 44, wherein the mixture applied to the substrate is dried, stoved, irradiated with free radicals or/and heated in order to form a thoroughly crosslinked, corrosion-resistant, viscoelastic coating.

51. (new) A process according to claim 44, wherein a coating having a thickness of less than 10 μm, in particular less than 8 μm, preferably less than 6 μm and particularly preferably of less than 4 μm is produced.

52. (new) A process according to claim 44, wherein the mixture is free or substantially free from organic lubricants, such as e.g. based on PTFE, silicone or oil, inorganic or/and organic acids or/and heavy metals and other cations, such as arsenic, lead, cadmium, chromium, cobalt, copper or/and nickel.

53. (new) A process according to claim 44, wherein comprises at least one metal or/and at least one alloy and is optionally precoated, in particular comprises a sheet comprising aluminium, an aluminium, iron or magnesium alloy or steel, such as e.g. automobile steels.

54. (new) A process according to claim 44, wherein the mixture according to the invention is applied directly to a pretreatment coating.

55. (new) An electrically conductive coating prepared by the process of claim 44.

56. (new) A metal substrate coated with the electrically conductive coating of claim 55.